

Conducting Counts of Non-Motorized Transportation Users

Shaunna Burbidge, Active Planning and Thomas Hales, UDOT Research Division

March 2016 – UDOT Research Newsletter, spring edition

Over the past five years non-motorized modes of transportation have become ever more prevalent on Utah's roadways. Historically, these modes have not been included in traffic counts nor are they accurately represented in the long range planning models used by UDOT and the MPOs. This exclusion creates an incomplete picture of both state and local transportation systems, making it difficult to evaluate facility usage.

Creating a Count Methodology

This research sought to create a structured approach for conducting non-motorized user counts, including which methods are most appropriate for conducting bicycle and pedestrian counts across Utah's diverse urban and rural environments. First, existing methods and technologies for counting non-motorized transportation users were identified and evaluated to determine their appropriateness and effectiveness in different environments and conditions. Second, interviews were conducted with local agencies who have experience conducting counts, and subject matter experts from around the country. Additional efforts included participating in national workshops and training webinars related to conducting non-motorized counts. Finally, validation data were collected at several local sites identified by the research Technical Advisory Committee.



Micro Radar Installation on the Weber River Pathway

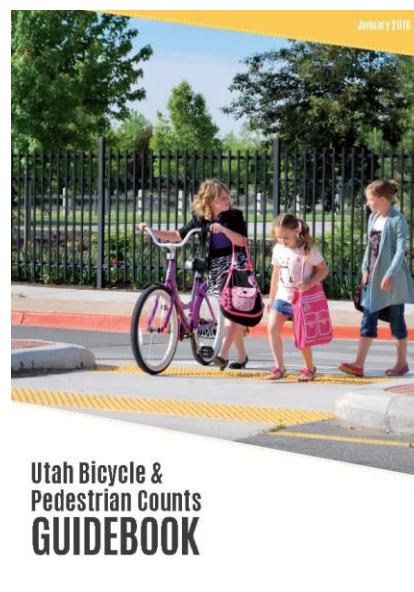
Testing New Technologies

UDOT currently has the capability to detect bicycle traffic at intersections using radar signal sensors. This technology has not been widely implemented nationally for the purpose of conducting

non-motorized counts, but was seen as a promising alternative considering it is already in place at a large majority of Utah intersections. Micro Radar, a newer technology which utilizes a puck sensor embedded in the pavement or parallel housing, was also tested at several local sites to determine its effectiveness for measuring non-motorized traffic.

The Utah Bicycle and Pedestrian Counts Guidebook

After evaluating all existing count methodologies and testing new potential methods, findings were summarized and compiled into a practical implementation guidebook. The guidebook is intended to educate local jurisdictions, government agencies, UDOT Region staff, MPOs, advocacy groups, or even members of the public on how to plan, prepare for, and conduct counts of non-motorized system users.



This comprehensive resource was created using the data gathered through the literature review, interviews, workshops/trainings and site testing conducted for this project. The creation of the Utah Bicycle and Pedestrian Counts Guidebook will allow diverse groups across the state to confidently prepare for and conduct counts using standard techniques that promote uniformity and ensure that data no longer goes to waste. For additional information, please contact Shaunna Burbidge of Active Planning, burbidge@walkbikeplan.com, or Tom Hales of UDOT Research, tahales@utah.gov.